Patent Application of

Earl Vaughn Sevy

For

TITLE: ATOMIZATION JET ASSEMBLY

CROSS-REFERENCE TO RELATED APPLICATIONS:

Provisional Patent Application, Serial No. 60/464,664 Filed April 10, 2003

Design Patent Application, Serial No. 29/179,375 Filed April 10, 2003 (Now Issued)
Patent No. US D491,258 S, Date of Patent: June 8, 2004

Design Patent Application: Serial No. 29/179,376 Filed April 10, 2003 (Now pending)

Design Patent Application: Serial No. 29/179,346 Filed April 10, 2003 (Now Issued)
Patent No. US D492,020 S, Date of Patent: June 22, 2004

FEDERALLY SPONSORED RESEARCH

Not applicable

SEQUENCE LISTING OR PROGRAM

Not applicable

BACKGROUND OF THE INVENTION-- FIELD OF INVENTION

This invention relates to aromatherapy essential oil diffusers, specifically to an improved atomization jet assembly for essential oil diffuser wells.

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an easy flow path for the oil or liquid. As the oil reaches the top of ball radius 41 it mixes with air exiting small hole 42. An air/oil mixture now sprays out through hole 66 in an upward direction. The oil/air mixture may create a spray pattern ranging from a fine mist to a sputtering of large droplets depending on the viscosity of the oil. A glass diffuser 82 is inserted into jet well hole 84 to separate large oil particles from airborne particles. (Please see design patent for Glass diffuser) The large particles are returned to jet well 84 and airborne particles are carried out the top of glass diffuser 82 with the escaping air flow. When air supply 86 is turned off, back siphoning of oil into small hole 42 is prevented by capillary break 40. Gravity pulls oil down to the open area created by radius 40. Without capillary break 40, oil could enter small hole 42 and begin filling air supply chamber 86 by way of capillary. If oil were to fall down hole 43 it would create a suction and keep pulling more oil through hole 42. This process would keep going until jet well 84 is empty. Oil is suspended around surface 39 and chamfer 38 due to capillary tension between large Jet diameter 37 and inside diameter 63 of the cap. Capillary tension is also created by jet slot 36, Teflon rod 70 (not shown in figure 18) and inside cap diameter 63. Capillary break 40 is very important because it stops back siphoning.